

AD-A058 363

BDM CORP MCLEAN VA

F/G 15/6

THE SOVIET NAVY DECLARATORY DOCTRINE FOR THEATRE NUCLEAR WARFAR--ETC(U)
SEP 77 R O WELANDER, J J HERZOG, F D KENNEDY DNA001-76-C-0230

UNCLASSIFIED

BDM/W-77-474-TR

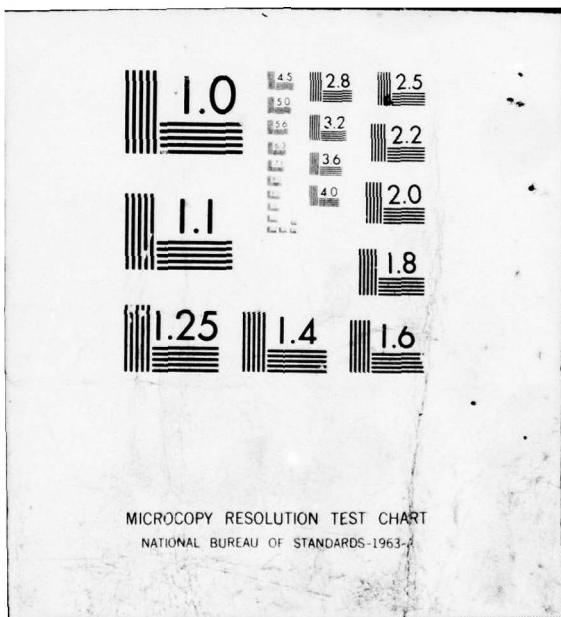
DNA-4434T.

NL

| OF
AD
A058 363



END
DATE
FILED
10-78
DDC



AD A038363

(12) LEVEL II^{SC}

AD-E300 301

DNA 4434T

THE SOVIET NAVY DECLARATORY DOCTRINE FOR THEATRE NUCLEAR WARFARE

The BDM Corporation
7915 Jones Branch Drive
McLean, Virginia 22101

30 September 1977

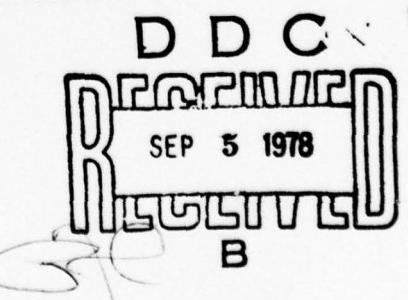
Topical Report for Period 1 March 1976–30 September 1977

CONTRACT No. DNA 001-76-C-0230

APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED.

THIS WORK SPONSORED BY THE DEFENSE NUCLEAR AGENCY
UNDER RDT&E RMSS CODE B325076464 V99QAXND01507 H2590D.

Prepared for
Director
DEFENSE NUCLEAR AGENCY
Washington, D. C. 20305



78 07 21 042

Destroy this report when it is no longer
needed. Do not return to sender.



(18) DNA, SBIK

627044

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

(19) REPORT DOCUMENTATION PAGE			READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DNA 4434T HD-E300 301	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER 9	
4. TITLE (and subtitle) THE SOVIET NAVY DECLARATORY DOCTRINE FOR THEATRE NUCLEAR WARFARE		5. TYPE OF REPORT & PERIOD COVERED Topical Report for Period 1 Mar 76-30 Sep 77	
6. AUTHOR R. O. Melander J. J. Herzog F. D. Kennedy, Jr		7. PERFORMING ORG. REPORT NUMBER BDM/W-77-474-TR	
8. PERFORMING ORGANIZATION NAME AND ADDRESS The BDM Corporation 7915 Jones Branch Drive McLean, Virginia 22101		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NWED Subtask V99QAXND015-07	
11. CONTROLLING OFFICE NAME AND ADDRESS Director Defense Nuclear Agency Washington, D.C. 20305		12. REPORT DATE 30 September 1977	
13. NUMBER OF PAGES 56		14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) 12 55p.	
15. SECURITY CLASS (of this report) UNCLASSIFIED		15A. DECLASSIFICATION DOWNGRADING SCHEDULE (17) D0151	
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES This work sponsored by the Defense Nuclear Agency under RDT&E RMSS Code B325076464 V99QAXND01507 H2590D.			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Soviet Navy Theater Warfare Nuclear Warfare			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This topical report presents an analysis of unclassified Soviet writings on their military and naval doctrines for nuclear warfare. Based on this analysis, a postulation of Soviet Navy Doctrine for Theatre Nuclear Warfare is presented.			

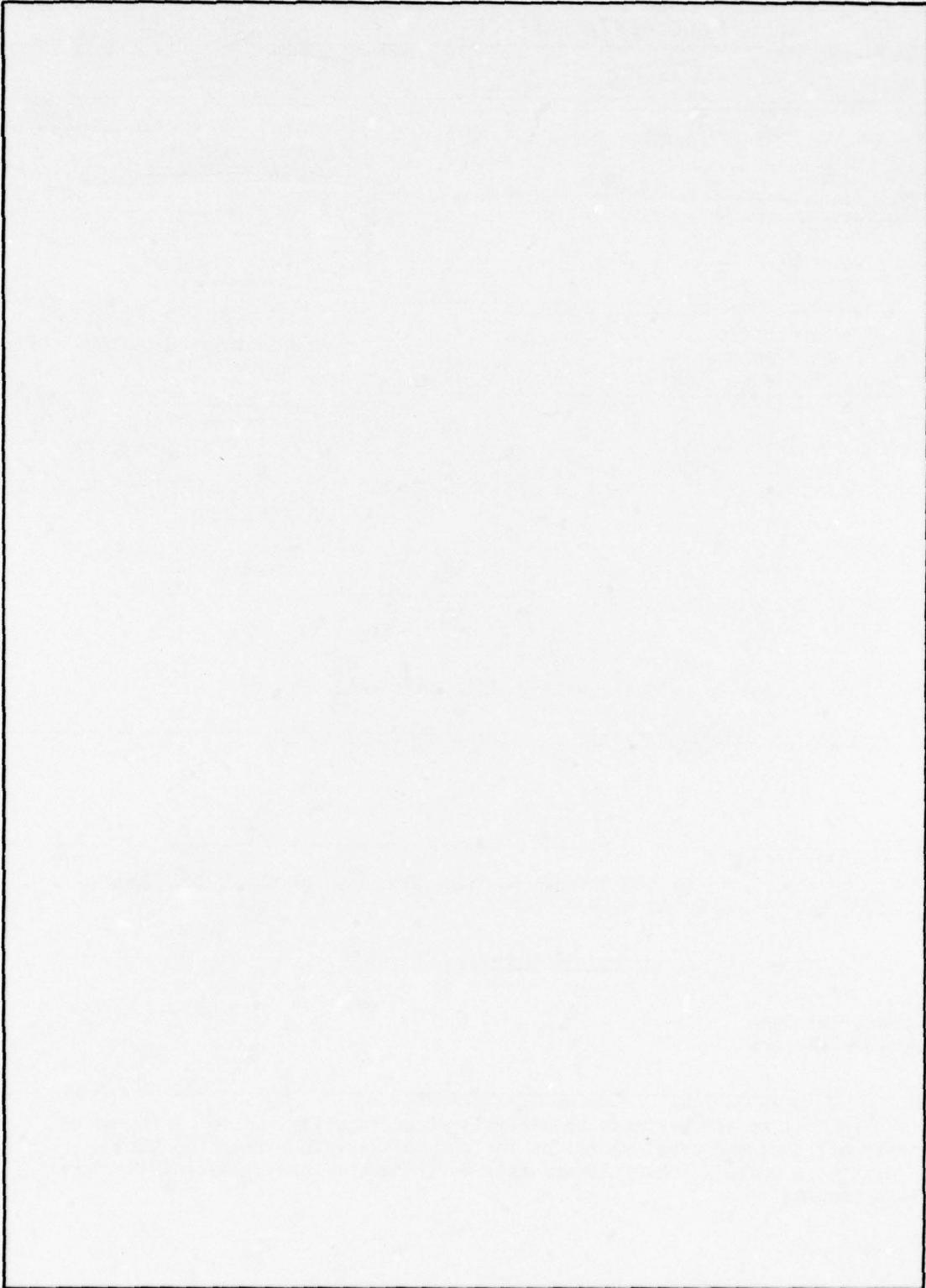
DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

78 07 61 04 2 SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)
391 962 YB

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)



UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

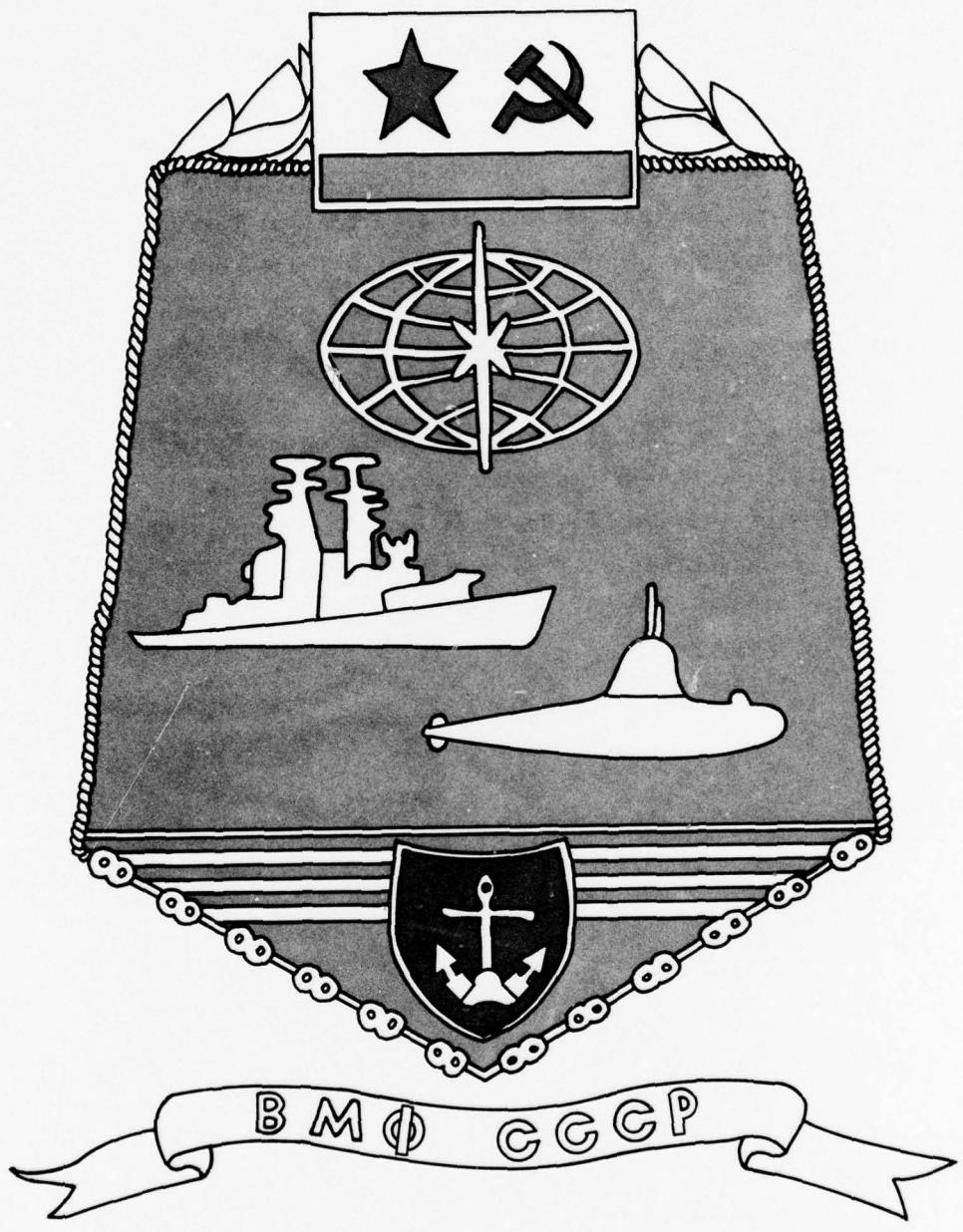
PREFACE

Under Contract DNA001-76-C-0230, the Defense Nuclear Agency sponsored a research program by The BDM Corporation of McLean, Virginia to enhance the understanding of the nuclear warfare capabilities of the Soviet Navy and how these capabilities might be applied in theatre-level conflict. The purpose of this report is to foster wider consideration and discussion among other interested elements of the Defense Community.

The principal authors of this work were R. O. Welander, J. J. Herzog, and F. D. Kennedy, Jr., all of The BDM Corporation. These individuals remain solely responsible for the views and conclusions reported herein.

Publication of this report does not constitute approval by the Defense Nuclear Agency or any other U.S. government organization of the inferences, findings and conclusions contained herein. Publication is solely for the exchange and stimulation of ideas.

ACCESSION FOR	
NTIS	WPA Section <input checked="" type="checkbox"/>
DDC	DIA Section / <input type="checkbox"/>
UNANNOUNCED	<input type="checkbox"/>
JUSTIFICATION	
BY	
DISTRIBUTION/AVAILABILITY CODES	
Dist. AVAIL and/or SPECIAL	
A	



Shield of the Naval Fleet of the Soviet Union

TABLE OF CONTENTS

	<u>Page</u>
PREFACE	1
TABLE OF CONTENTS	3
THE SOVIET NAVY DECLARATORY DOCTRINE FOR THEATRE NUCLEAR WARFARE	5
INTRODUCTION	5
Military Doctrine in the Soviet Context	6
Current Soviet Military Doctrine in Broad Outline	9
The Nature of Future War	12
War Initiation	14
Escalation and Escalation Control	15
Nuclear Warfighting	21
"Surprise" in the Soviet Concept	24
Unified Strategy and Unity of Command	26
Soviet Navy Threat Perceptions	28
Soviet Navy Mission Priorities	29
Soviet Navy Force Priorities	30
Soviet Navy Concern for the "Breakout"	31
Soviet Naval Operational Concepts	33
SUMMARY POSTULATION OF DECLARATORY DOCTRINE	39
CONCLUDING COMMENTS	42
REFERENCES	44

THE SOVIET NAVY DECLARATORY DOCTRINE FOR THEATRE NUCLEAR WARFARE

INTRODUCTION

In order to enhance the understanding of the Soviet Navy doctrine for employment of theatre nuclear capabilities, extensive research has been undertaken in the large body of available Soviet professional military literature.

This approach was based in the fundamental hypothesis that the Soviet military, in their professional journals and theoretical writings, do indeed address strategic and operational matters in a relatively forthright manner for the elucidation of their officer corps and for the development of an internal consensus on the aims, constraints, and modes of military force application. The validity of this hypothesis has been increasingly demonstrated in recent years by numerous military analysts in the West. Moreover, consistency checks of varying degrees of sophistication can be conducted to ascertain if the written concepts and theories are in fact being pursued by the Soviets; force structure, and particularly changes and modernization thereof, may be analyzed in this light; force deployments and contingency postures may be examined for consistency; and the observables of Soviet military exercises may be analyzed for evidence of practical implementation.

To guide the research through the very considerable body of material available, a number of themes and sub-topics were identified and subjected to close examination. In the judgment of the research team, these themes and sub-topics delimited and characterized the Soviet approach to theatre nuclear warfare, which for present purposes has been defined as the use of nuclear capabilities at all levels below that of nuclear strikes into the United States and Soviet homelands. Primary source materials chosen were the Soviet military journals and the publications of Voyenizdat, the publishing house of the Soviet Ministry of Defense, on the presumption that, having been cleared for publication by the military and political

authorities, such writings reflected, within fairly narrow bounds, the elements and major outlines of evolving Soviet military thought on the issues of interest. The several national and military newspapers were also reviewed, primarily for consistency with and corroboration of the views expressed in the journals and books. Given their international readership, however, there is a higher potential for hyperbole and posturing on transitory issues in these newspapers than in contemporary professional journals.

The highlights of this research are presented in the discussion which follows. The broad underlying concepts of the overall Soviet doctrine for theatre nuclear warfare are presented, noting their naval overtones and implications. With this as a basis, the operational and tactical concepts specifically related to the Soviet Navy are then addressed.

In the Summary section, the authors postulate those elements which, in their judgment, best characterize the current Soviet Navy doctrine for the conduct of theatre nuclear warfare. It is to be noted that this has been termed "declaratory" doctrine, based as it is solely on views expressed in the professional military literature, and yet to be subjected to such consistency checks as the available data might support.

Military Doctrine in the Soviet Context

At the outset, it may be well to establish the unique character and role of military doctrine in the Soviet concept, for it has no direct counterpart in U.S. military parlance. While we may speak of a "firing doctrine," an "assault landing doctrine," or even a "doctrine" for military operations on a larger scale, the connotations are generally the same; first, that the matter is of an operational nature, and secondly, that it represents an agreed method which facilitates coordination or ensures uniform application. The official DOD definition of doctrine is,

Fundamental principles by which the military forces or elements thereof guide their actions in support of material objectives. It is authoritative but requires judgment in application.

Soviet military doctrine represents something quite different, stemming from their own policy-making process. In the Soviet concept, military doctrine represents state policy, shaped and agreed upon by both the political and military leaderships. As such, it provides the parameters both for structuring forces and, if need be, conducting military operations. The official Soviet definition of military doctrine is,

A nation's officially accepted system of scientifically founded views on the nature of modern wars and the use of armed forces in them, and also in the requirements arising from these views regarding the country and its armed forces being made ready for war.

Military doctrine has two aspects: political and military-technical. The basic tenets of a military doctrine are determined by a nation's political and military leadership according to the socio-political order, the country's level of economic, scientific and technological development, and the armed forces' combat materiel, with due regard to the conclusions of military science and the views of the probable enemy.²

Standing at the apex above military strategy, military science, and military art, doctrine provides complete fusion of political purpose with military capabilities and planning. Each of the military sub-elements has its own function in what might best be characterized as a closed-loop cycle. Military art, in the Soviet concept, deals with how forces or weapons systems are to be employed, largely in an operational sense; it also helps to define future needs.³ Military science is the theoretical foundation of force employment, both in terms of scope of operations and the amalgamation of diverse capabilities, but still largely in pursuit of military objectives. In addition, military science has the function to discern and propound future potential, by incorporating technological advances or otherwise increasing military capabilities.⁴ Military strategy then has the function of devising and making explicit how military capabilities, in being or proposed, can best serve the purposes of the state.⁵ Doctrine, when settled upon by the leadership, then flows downward, not only for implementation but also to start this cycle anew.

Soviet military doctrine can -- and does -- change over time. This is implicit in the Lenin dictum, continually stressed by the Soviet military theoreticians, that war is a continuation of politics by violent means; it conditions the Soviet military to the acceptance of doctrine shaped to support the political purposes of the state as they are defined by the Soviet leadership at any one time. For example, in 1970 Colonel-General N. A. Lomov wrote:

The Leninist definition of war as the continuation of State policy by violent means regards war as a social phenomenon in which the methods, forms, and means of conducting it are determined by political aims, military-economic capabilities, and the strategic position of the belligerents. Hence it follows that the content of the military strategy of every state has not only a specific military character, but also a social-historical one. Military strategy is indivisible from policy--its basic theses are determined primarily by policy.⁶

Whatever the political--or ideological--purpose of the state may ultimately entail, Soviet military doctrine must provide the undergirding strength and assurance not only that the state will survive but that ultimate victory will be achieved.

Thus, the fundamental goals of Soviet military doctrine remain constant: To safeguard the homeland and the "gains" of socialism throughout the world, while ensuring the inexorable advance of the latter.

To the extent that the Soviet military influence doctrine, it seems to be largely as "worst case" planners. Their role is to ensure that any military situation can be met and that the Soviet leadership can retain the initiative in pursuit of state purposes - and if hostilities ensue, that the Soviets can and will prevail.

It is against this background that the Soviet professional military literature must be analyzed. Much of what is available to the West lies within the realm of military art, military science, and military strategy. Here the writings generally reflect two aspects; first, that of dissemination of agreed positions or policy, with the implication that they are in implementation of either existing or new doctrine; and second, of

proponency, where concepts are being disseminated for the information of one's peers before their incorporation into doctrine. In the latter regard, it must be noted that such writings are in the minority; particularly in recent years there seems to be little of the argument and rebuttal noted in military journals in the mid-1960's. All of these writings are cleared for publication either by a Service or by the Ministry of Defense, and unless the issue is one on which discussion is specifically desired, there is little likelihood of significant departure from established positions or policy. On occasion, military doctrine as such is discussed in the professional writings and the tone is invariably expository or interpretive, as befits state policy.

By judging the tone, timing, level of publication, and consistency with the body of military literature, as well as the author's position, one can usually discern policy pronouncement from proponency. Further, by recognizing where the subject matter fits in the hierarchy, it is possible to check for vertical consistency. Through such processes, Soviet military doctrine can be pieced together in some detail from the professional military literature, although there will be voids or vagueness in certain areas which can only be bridged by informed judgment.

Current Soviet Military Doctrine in Broad Outline

Soviet military thought on the nature of future wars has clearly evolved from a belief that world war would inevitably involve an all-out nuclear exchange to an acceptance of the feasibility of East-West military confrontations of varying intensity dependent upon the political objectives of the combatants and the criticality of the national interests that are engaged. Illustrative of early Soviet views on this subject are those contained in Marshal V. D. Sokolovskiy's Military Strategy (Voyennaya Strategiya):

It should be emphasized that, with the international relations existing under present-day conditions and the present level of development of military equipment, any armed conflict will inevitably escalate into a general nuclear war if the nuclear powers are drawn into this conflict.

The logic of war is such that if a war is unleashed by the aggressive circles of the United States, it will immediately be transferred to the territory of the United States of America. All weapons - ICBM's, missiles from submarines, and other strategic weapons - will be used in this military conflict.

Those countries on whose territory are located military bases of the US, NATO, and other military blocs, as well as those countries which create these military bases for aggressive purposes, would also be subject to shattering attacks in such a war. A nuclear war would spread instantaneously over the entire globe.

This rigid approach has become more flexible in the 1970's, however. As an example, in a 1976 article in Red Star entitled "Wars in the Eyes of the Pentagon," General-Major R. Simonyan explains the essence of American theories of strategic, limited, and local war and admonishes only that conventional war in Europe "...carries with it the constant danger of being escalated into a nuclear war."⁸

This evolution undoubtedly reflected the Soviet leadership's perception of the "correlation of forces" between East and West, and at each step the evolving doctrine seems to have contributed substance to the posture that the Soviet government took before the world. The dominating influence on this doctrinal evolution appears to have been the Soviet's perception of their own strategic nuclear capability and vulnerability at the uppermost end of the conflict scale. Strategic deterrence was an absolute necessity, and until they achieved the capabilities that would permit this deterrent posture to be effective, doctrine focused on the worst-case situation. The second major influence appears to have been a similar Soviet perception of their conventional capabilities and vulnerabilities in conflict below the level of strategic exchange. That the Soviets were not confident in - or at least satisfied with - their conventional posture seems implicit in their continuing efforts to maintain and improve that posture at what must have been a significant strain on their economy. The third influence, and one which may be gaining the ascendancy, appears to be the perception held by the Soviets of the fortunes of their

social and political aims throughout the world and the progress that is being made toward their ultimate goals at levels of conflict which do not involve the direct use of their military forces.

Through an evaluation and synthesis of all available Soviet writings on military strategy and doctrine, several elements of this doctrine become evident. These elements and logical corollaries to them include the following:

- (1) Soviet military strategy and state policy comprise an "organic unity" with the latter playing the determinant role.⁹
- (2) Until nuclear weapons are banned, there can be no guarantee that there is no possibility of a nuclear world war. As a consequence, the Soviet political leadership took control of nuclear weapons from the very outset. Nonetheless, the unity of political and military leadership is an undisputable fact.¹⁰
- (3) Soviet politico-military strategic objectives must conform to the realities of Soviet military and economic capabilities.¹¹
- (4) The pace and resolution with which these politico-military objectives are pursued must fully consider the worldwide nuclear capabilities of the adversary blocs and coalitions.¹²
- (5) The locale and timing for the pursuit of politico-military objectives must be skillfully chosen on the basis of the political and economic situation in the target country or region and the local military balance.¹³
- (6) While significant politico-military objectives can be achieved by employing non-nuclear weapons in local and limited wars, only major objectives should be pursued in such wars if there is any risk of nuclear escalation, and then only if there is assurance of quick and decisive success at the conventional level.¹⁴
- (7) And finally, in pursuing politico-military objectives, it must be borne in mind that there are appropriate times for a strategic offense, defense, or even withdrawal.¹⁵

(8) In summary, given the diversity of political, economic and military means at the disposal of the Soviets, the choice for a politico-military strategic operation should be made on the basis of clearly understood objectives and relative capabilities, the ability to retain the initiative, and the ability to exploit favorable local political and economic conditions. Choice must also consider timing, the ability to bring the chosen means to bear, and the ability to bring other means to bear if necessary to ensure the success of the venture.

If Soviet politico-military actions throughout the world are considered since the Cuban missile crisis -- when one might say they had to face the realities -- they can be seen to fit the above, flexible prescription. Within this doctrine, the challenge to the Soviet military is to maintain the array of capabilities and the posture which will permit this flexibility and a retention of the initiative by their political leadership -- and, as always, the ability to prevail should the "worst case" occur.

The Nature of Future War

The nature of "wars in the modern era" is a dominant theme in the Soviet professional military literature at every level and its treatment over the years is indicative of the evolution of Soviet military doctrine.

From the 1950s through the mid-1960s, the focus of Soviet military writing was on the all-out nuclear world war, always "unleashed by the imperialists." With a dispassion that is notable by Western standards, Soviet authors theorized and discoursed on how such wars could be fought and won. The net impression is that they had come to grips with the prospect and had worked out their concepts to the minutest tactical detail. Their current literature gives much the same impression of readiness for the all-out nuclear exchange and its aftermath, most certainly at the intellectual level, and if taken at face value, the operational level as well.

In the late 1960s, the Soviet military literature began to acknowledge that a world war between the blocs could begin at a conventional

level. In discussing the conventional aspects of such a war, the Soviet military authors drew heavily on past Soviet experience and evolutionary concepts, and the impression gained is again that of complete intellectual and operational readiness for warfare at that level. For example,

Modern world war, if launched by the imperialists, will undoubtedly be a nuclear war.

Hence, a situation may arise in which combat operations begin and are carried out for some time (most probably for a relatively short duration) without the use of nuclear weapons and only subsequently will a shift to operations with these weapons take place. At the same time, if both sides have an approximately equal number of troops, then there is not excluded a certain balance of forces, in which combat operations with only the use of conventional weapons can extend over a longer period of time.¹⁶

However, the gray area between worldwide war at the conventional level and the all-out nuclear exchange has been a difficult regime for the Soviet military authors to address. From the early 1960s, the Soviet theoreticians conceptualized and discussed the use of tactical nuclear weapons in great detail, but it was almost invariably in the context of an on-going intercontinental exchange or the stages of the conflict immediately precedent thereto. Somewhat later, they tried to conceive their separate use and the effect that such use might have on the nature of future wars.

The Soviet authors seemed to acknowledge that local or limited wars -- where the vital interests of neither the U.S. nor the Soviet Union were irrevocably engaged -- had some potential for entering a nuclear phase that need not escalate to an all-out exchange. However, in wars wherein the vital interests of both participants were engaged -- and specifically in the NATO European context -- there was seen to be an extremely high potential that they would enter a nuclear phase, the extent of which was seldom specifically addressed.¹⁷ In their more recent writings, the Soviet military authors seem to imply that such a phase need not necessarily eventuate in an all-out intercontinental war.¹⁸ However, the means whereby this "theatre phase" could be controlled and contained is never made

explicit; rather, the implication is, that like a master chess player, they can retain the initiative and ultimately "take the board." There is some evidence that the Soviet military theoreticians are attempting to focus more clearly on theatre nuclear warfare, but it is tenuous at best. Whether this vagueness is purposeful or merely reflects the inability of Soviet doctrine to address the intangibles involved is moot. With respect to future war, the Soviets appear to be planning and posturing themselves for the worst while hoping for the best.

War Initiation

Another dominant theme in the professional military literature is the initial period of a war. This emphasis has its roots in the totality of the Marxist-Leninist dialectic -- and apparently some rather specific guidance from the political leadership. This is not at all unreasonable, for this is obviously the critical period, where under "modern conditions" everything is going to be won or lost; a draw, or "checkmate", does not outwardly appear to be an acceptable Soviet outcome.

The ostensible scenario in all military writings reviewed is that of the imperialists "unleashing war" if other more rational elements fail to constrain them. By some considerable intellectual exertion, one can impute a Soviet intention to initiate war at the conventional level, anticipating an immediate nuclear confrontation, when their engaged state interests are perceived to be vital; it is much easier to ascertain a concept of gradual Soviet pressure to uncover the soft spot that can be exploited at manageable risk with conventional means.

It is also possible to read into Soviet military writings the intention to preempt if the situation presents a level of threat where there is any question of Soviet ability to prevail. In earlier years, such writings had nuclear overtones;¹⁹ more recently, the context is conventional or ambiguous.

The issue of preemption is tied to the element of surprise which figures prominently in most Soviet writings. As will be discussed later, this is one of the Soviet "principles of the art of war" and is more complex

than it first appears. Accordingly, one has to examine very carefully the context in which an author writes to determine if preemption is indeed the proper interpretation. If one accepts the version of military doctrine set forth earlier, one would infer that preemption would occur only at the uppermost boundary of risk in the face of incontrovertible evidence of planned attack which would put the Soviets at serious disadvantage. If one takes the view that the Soviets have more aggressive intentions and a lower risk tolerance, the same writings would imply that the Soviets would initiate whenever they judge hostilities to be unavoidable.

If Soviet military doctrine is ambiguous on these two critical issues, it may be purposely so to permit the political leadership maximum flexibility. The continual Soviet emphasis on readiness would be consistent with such a purpose.

Escalation and Escalation Control

Related to the vagueness on the nature of future wars noted earlier is the apparent inability of Soviet military theoreticians to come to grips intellectually with the concept of escalation. The tenor of recent military writings suggests that the Soviets believe they have achieved deterrence at the level of strategic exchange and can contain warfare below that level at acceptable risk. Whatever element of risk remains apparently is seen to be covered by preparation of their military forces, industry, and population for nuclear warfighting, which in itself could be interpreted as an effort to improve their deterrent posture.²⁰

However, when the Soviet military theoreticians have attempted to address the limited or controlled use of nuclear weapons, particularly in theatre warfare, their writings are notably sterile. The impression given is either of proscription or inability to intellectualize the issues entailed. Soviet military authors have done little but discredit Western concepts, usually in tones bordering on incredulity. Their commentary on "flexible response" has been the most extensive, and almost invariably to the effect that it is a U.S. effort to deceive its own NATO allies. RADM Andreyev wrote in a 1972 issue of Morskoy Sbornik:

The Americans are endeavoring to geographically limit areas of use of nuclear weapons in such a way that US territory would remain outside their boundaries. The American leadership is not concerned about the fate of the peoples of those nations that are allied in NATO and in other aggressive blocs, and who may find themselves located in the combat zone of a "limited war." According to information in the foreign press, right now, more than 7,000 US nuclear weapons (bombs, missiles, and artillery projectiles) and more than 3,000 nuclear weapons delivery vehicles are concentrated in Western Europe. It is easy to imagine what will happen to these peoples if both warring sides use the nuclear stores.²¹

The "demonstration" use of nuclear weapons by the West is discarded by the Soviets with the flat assertion that it will receive response in kind. Each of the other Western notions of steps in the "escalation ladder" receives similar summary treatment.²² Recent Soviet military writings have only advanced their position to the point where there is acknowledgment that the political aims and purposes of the conflict would have to be carefully weighed -- presumably by both sides. However, what is significant is that the context within which Soviet military authors address the limited use of nuclear weapons is invariably in Europe and other areas outside the borders of the Soviet Union; none of the Soviet military theoreticians has addressed the situation of limited use which impinges on the homeland.²³ This is evidently the only clearly recognized escalation boundary between theatre or limited use and strategic nuclear warfare.

The threshold between conventional and tactical or theatre nuclear weapon use is similarly ill-defined by Soviet military theoreticians. Some of them acknowledge that the crisis point will be reached when the enemy is posed with the problem of defeat or the loss of significant strategic territory behind an established defense line;²⁴ but even here the prescription for handling such a situation is merely that the Soviet operational and political leadership must have all the relevant information needed to

render their best judgment.²⁵ The viewpoint of NATO in this matter was the subject of a 1966 article:

What factors accelerate making a decision to transform an already conventional conflict into a nuclear war? According to the opinions of NATO leadership, these factors may be divided into two groups. To the first group belong those which initially force the use of nuclear arms by the offensive. To the second group belong those which force the use of such arms by the defensive. In the over-whelming majority, these factors are of an operational nature and only several [sic] of them may be attributed to the strategic category.

In conducting NATO armed forces in offensive operations using nuclear means, the basic incentive motives for a transition to nuclear war, in the opinion of NATO theoreticians, should be the following:

- Conviction that the defensive intends in the immediate future to use nuclear weapons and a desire to forestall it;
- Loss of speed or a successful delay in the attack by the defensive, as a result of which only the use of nuclear weapons appears to the offensive as a means of renewing its attack;
- Ineffectiveness of the defensive in containing the actions of the enemy by conventional fire means;
- Necessity of gaining time for the regrouping of troops owing to the use of nuclear weapons;
- Striving to reliably paralyze the rear (naval) communications of the defensive in order to stop the flow of reinforcements;
- Conviction that the use of nuclear weapons will destroy the military morale of the army and the people of the defensive.

However, in NATO military circles at the present time there is no unity of opinion on the problem.²⁶

While ostensibly attributed to NATO, this doctrine, especially the fifth condition for transition to nuclear war, could just as logically be directed against NATO by the Warsaw Pact, and is probably more a reflection of mid-1960's Soviet thinking on the subject than that of NATO.

In this regard, the Soviet naval writings have been specifically reviewed for perceptions of when an enemy might be impelled to transition from conventional to nuclear weapon use. They are notably silent on the issue.

Soviet military theoreticians acknowledge that there may be situations where they will have to take a defensive posture, either to prepare a counterattack or to hold while other elements of the overall attack proceed on other axes. But even in these defensive situations there is no indication of the threshold where the Soviets would feel impelled to transition from conventional to nuclear weapons. In the context of an ongoing nuclear war, it is clear that the Soviets would rely heavily on the use of nuclear weapons to defend and hold their position;²⁷ such is not the case in any of the conventional scenarios they address.

Again, Soviet naval writings were carefully reviewed in this specific regard. The results were similarly negative. Moreover, Soviet naval theoreticians do not address defense in terms of own force or mission survival. The Soviet Navy has the mission of defending the homeland -- defending a coastal zone -- defending their own sea lines of communications -- or even defending their own submarines; but these are always discussed in terms of the offensive actions that will be necessary to accomplish these defensive missions. There is no evident sense of extraordinary self-defensive measures which must be taken to ensure survival of a specific unit or force which is critical to mission success. As an example, the vulnerability of Soviet Navy surface units to air attack is widely discussed and the improvement of air defense acknowledged as an urgent requirement.²⁸ However, in no instance was there even a clear implication that nuclear weapons would be used to do so, despite the fact that this capability is generally attributed to their surface-to-air missile systems. Much the same is true with regard to the use of anti-submarine weapons.

In trying to understand this anomaly, one can settle on several explanations. The first is that the Soviet Navy has gone to great lengths

to inculcate an offensive spirit and outlook in its personnel and discussing such considerations of self-defense would be inimical to this goal. A second explanation might lie in the fact that the Soviet Navy does not seem to embrace the concept of the "high value unit," that one element on whose survival all else depends. This would be consistent with their present force composition and pattern of force employment: offensive capability is widely dispersed both in terms of types and numbers of platforms and these are never so aggregated that "all their eggs are in one basket."

The possible exception to this lack of a defensive concept is with regard to their own SSBN force, which will be discussed at a later point.

The relevant question on this point, however, is whether or not the Soviet Navy would differentiate between the enemy's use of defensive weapons and offensive weapons. To be specific, how would the Soviets regard the use of nuclear depth charges or nuclear surface-to-air missiles to protect a U.S. aircraft carrier? Would this be accepted or would it inevitably trigger their counter use of nuclear offensive weapons? If the Soviet Navy has no clear perception of a survivability threshold in their own case, would they recognize one on the part of their adversary? Unfortunately, nothing has been found in Soviet naval writings which would provide a definitive answer one way or the other.

A specific effort was also made to ascertain Soviet Navy views on the utility of nuclear weapon use and their self-perception of the adequacy of their conventional weapons to accomplish their missions. Evidence was found of their view of the increased effectiveness of nuclear over conventional weapons but this is hardly remarkable in itself. In writings of the early 1960's, it is clear that nuclear weapons would be used in preference to conventional to ensure destruction of the enemy nuclear strike forces and the accomplishment of all other major missions.²⁹ However, the context of these writings was the all-out nuclear war; more recent writings imply renewed consideration of the use of conventional weapons. Soviet naval

theoreticians still insist on the destruction of nuclear threat platforms before they can launch their weapons, but the professional writings reviewed to date do not provide any insights as to perceptions of the adequacy of their conventional capabilities alone to do so.

One element that does emerge clearly in Soviet military doctrine is that regardless of how a war starts, and whether conventional or not, the priority targets are the enemy's theatre nuclear strike capabilities.³⁰ This may seem a simplistic approach to escalation control, but it is impossible to draw any other conclusion from their writings.

In discrediting the concept of "flexible response", Soviet military theoreticians make the point that it would be impossible to differentiate the "limited" use of a strategic weapon system.³¹ This conception may underlie what appears as an equally simplistic approach toward the U.S. SSBN force. The message is loud and clear in Soviet doctrinal writings, and particularly those of naval theoreticians: the Soviet Navy intends to hunt for and destroy U.S. missile submarines from the outset of hostilities. This conclusion is incontrovertible in those writings which address all-out nuclear war; and it seems impossible to come to any other conclusion from their writings about war initiated at the conventional level -- if there is any ambiguity it is only in the choice of weapons for such destruction. For example, Capt. 1st Rank V'yunenko wrote in 1975:

Having been recognized as the main strike force of a modern navy, the nuclear powered submarines armed with ballistic missiles have also drawn attention to themselves as the objective of the actions of all other naval forces against them. The struggle against missile-armed submarines and the efforts to destroy them before they employ their weapons have become one of the foremost missions of navies.³²

The notion of establishing and maintaining contact on U.S. SSBNs for preemptive attack only on indications of launch preparations can not be sustained by any reasonable interpretation of Soviet naval writings.

This apparent willingness to risk escalation in conventional war by attack on what is considered in Western circles to be a strategic system may be unsettling to some. It cannot be dismissed as bravado or a deceptive ruse. Nowhere in the Soviet military literature reviewed has there been evidence of concern for "the stability of deterrence" or "destabilizing" actions. The concept, which figures so prominently in Western strategic writings, is simply not addressed by the Soviet military in theirs. Rather than a lack of sophistication, this void might reflect a different military calculus.

As noted above, the only escalation boundary evident in the Soviet military literature seems to be nuclear strikes into the homeland. This could place actions at sea, even against one another's ballistic missile submarines, into somewhat the same category of risk as theatre warfare, subject to the same escalatory pressures and constraints.

The evidence of the increasing ASW orientation of the Soviet Navy would also tend to support the intent of attacking the U.S. SSBN force. However, the Soviet naval writings also reveal a deep-seated concern for the survivability of their own SSBN force.³³ The emphasis on ASW, then, could be seen as an effort to safeguard their own secure strategic retaliatory force just as well as an effort to destroy the U.S. SSBN force in an effort to control escalation -- or both. One must then question how the Soviets intend to cope with POSEIDON, farther and farther offshore, and ultimately TRIDENT.

For the purposes of this study, the position will be taken that Soviet declaratory doctrine includes the search for and destruction of the U.S. SSBN force from the outset of hostilities in theatre warfare. Validation of that element of doctrine and resolution of the incongruities entailed will be a major element of the analysis in subsequent phases of this study.

Nuclear Warfighting

One of the striking aspects of Soviet military literature is the heavy emphasis given to nuclear warfighting and the minute detail with which certain of its combat aspects are addressed. This is particularly

true in those writings dealing with the ground-air campaign in the continental land theatre, but it also carries over into the Soviet naval professional literature. The net impression is that the Soviet military has faced up to the reality of nuclear warfare, focused on it in their military schools and academies, and at least worked out the theory of how it should be fought and won. There is abundant evidence that the Soviets have designed and structured their forces in accordance with their theoretical writings, giving the impression that these writings have rationalized concepts which were later incorporated into doctrine.³⁴

The emphasis was, of course, heaviest in the literature of the 1960s, which had a primary orientation toward the all-out, worldwide nuclear war, but it carries through to the present: nuclear warfighting is still someplace in the background as the ultimate recourse.

The 1960s literature acknowledged that there could be a massive intercontinental exchange of nuclear weapons which would wreak widespread devastation in the Soviet Union. Nonetheless, defensive measures were to be taken concurrently with the counterstrike and the evident expectation was that the war not only could but would continue and had to be pursued to victory. Unrealistic as this might seem to the Western reader, the Soviet military theoreticians wrote in deadly earnest; it cannot be dismissed as sheer bravado - they were indeed "thinking the unthinkable," at a level of grim acceptance which eluded most Western theoreticians.³⁵

What is relevant to this analysis is that a theory of nuclear warfare was worked out that had its obvious focus in Europe; if the circumstance of an intercontinental nuclear exchange is removed, it appears reasonable to consider this theory as at least an initial prescription for the Soviet conduct of theatre nuclear warfare.

In the writings of the late 1960s, the Soviets seem to consider nuclear weapons simply as another element in their total arsenal of weapons; they have certain utilities in time and place and they produce certain collateral effects which must be taken into account in operational planning. The treatment is quite straightforward and dispassionate; they are to be

4 used just like any other weapon, and in combination with other weapons, to achieve operational military objectives. Their use is foreseen on the immediate battlefield and concurrently throughout the theatre and no evident distinction is drawn as to what effect this might have on the enemy's decision to employ his nuclear capabilities; on the contrary, there appears to be the supposition that the enemy will similarly attempt unrestricted use of his entire range of available weapons. To forestall this, the Soviet theoreticians place the highest priority on destruction of the enemy's nuclear capabilities by every available means from the very outset of hostilities and whenever subsequently located.³⁶ The prevailing view appeared to be that this would entail massive, simultaneous initial nuclear strikes.

As the Soviet military theoreticians later began to consider the possibility that theatre war might be initiated at a conventional level, the prevailing view appeared to be that this would be of short duration.³⁷ It seems clear that some significant fraction of the dual-capable forces, most notably air, was to be withheld in instant readiness for nuclear strikes when the situation demanded; whether in first use or in response to the enemy's first use was not made explicit. It is notable that even during the conventional phase, the priority targets for initial conventional strikes remained the enemy's nuclear capabilities - storage sites, weapons in transit, and dual-capable delivery systems.³⁸

The more recent writings seem to indicate a perception that the conventional phase might be more protracted but still ultimately could lead to a nuclear phase. Attention is being given to the problems of the transition, at least by the ground forces, where there must be a reconciliation of the massing of forces to prosecute the conventional attack and the dispersal of forces to withstand a nuclear strike - or counterstrike, again not specified.³⁹

With regard to the conduct of the war, the dominant theme is the Soviet offensive: maintenance of the initiative, attack along many axes to find the weak point, and then exploitation by forces held in echeloned readiness. The concept is all-pervasive, whether in nuclear or conventional warfighting.

On the few occasions when Soviet theoreticians addressed the defensive, it was generally in the context of ~~any~~ one element along the front and it seemed clear that this was conceived only as a transitory situation. Relief was to be achieved either by bringing up echeloned forces, or more frequently, by adjacent forces redirecting to encircle and destroy the enemy forces in opposition; aviation and frontal artillery/⁴⁰ missile forces played a major assisting role.

As consideration began to focus more intently on the conventional aspects of theatre war, the need was seen for greater attention to its tactical aspects so that combat could be waged successfully under any and all situations with any and all weapons. The political leadership was to be ensured a "scientific selection" of the most favorable combination of means and methods to achieve the war's specific political goals.⁴¹

While the bulk of the Soviet theoretical writings on nuclear warfighting addressed either its larger aspects in gross terms or its ground-air aspects in detailed terms, the Soviet naval writings were consistent with the main body of thought. Moreover, the case could be made and substantiated that the Soviet concepts for conduct of the ground campaign have rather direct naval analogues.

The point to be made at this juncture is that the Soviets do seem to have thought through nuclear warfighting to the extent that it can be posed to their political leadership as a theatre option, supported by its own rationale and prescription for success--if means can be found to constrain the enemy from ultimate resort to an intercontinental exchange.

"Surprise" in the Soviet Concept

When and under what circumstances the Soviet leadership would resort to nuclear warfighting in an escalating situation is undoubtedly a question only they can answer, but it seems inarguable that their choice would result from a net assessment of a number of factors. One which merits discussion at this point is the Soviet focus on the element of surprise.

As indicated earlier, it is all too easy to read Soviet military theory and conclude that the authors' concentration on the element of surprise translates in every instance to an intent to preempt. A close reading indicates that the Soviets consider surprise a two-edged sword that cuts both ways. Many of their historical allegories, particularly those written by Admiral of the Fleet of the Soviet Union Sergei Gorshkov, can be read as straightforward object lessons for the troops to give purpose and meaning to the unremitting Soviet emphasis on readiness--to guard against being taken by surprise. At the level of national strategy, surprise can be translated as doing the unexpected--taking a different position than anticipated--coming out with a new weapon system that overturns the existing balance, for example. In ongoing combat, surprise can be achieved by the timing of an attack, making a thrust in an unexpected direction, the daring use of airmobile and amphibious troops, the rapidity with which new forces can be brought up and engaged, and in a host of other ways.⁴² Surprise, in the naval context, has its own characteristics which will be discussed more fully at a later point.

Suffice to say, Soviet military theoreticians do make a major issue of surprise, but it is just as often in a defensive as offensive context. Prior to war initiation, they foresee a "threatening" period during which the utmost vigilance is required and they still seem to consider that the "imperialists" will attempt a surprise attack.⁴³ During combat, the continual emphasis is on the avoidance of being surprised. The pervasive Soviet stress on surveillance and reconnaissance can be seen, at least in part, as a reflection of this almost paranoid fear of being taken by surprise.

It is true that when indications of an enemy attack or imminent use of nuclear weapons are received, some Soviet military writers talk of "anticipatory measures." In some contexts, these seem to refer to increased measures of readiness or dispersal; in other contexts, the reasonable interpretation is indeed "strike first" to gain the advantage.⁴⁴

Preemption obviously cannot be ruled out but this analysis of Soviet military writings seems to indicate that it will be a political decision that could go either way; the evidence appears too thin to take it as a foregone conclusion.

Unified Strategy and Unity of Command

Soviet military writers make it clear that there is a unified strategy for the conduct of war; unified in the sense that it has been worked out in its essence by the political and military leadership and also unified in the sense that each of the branches of the Armed Forces makes an understood contribution so that the strength of the military entity is greater than the sum of its parts. Stress is also placed on the unity of command, again at both levels. Gorshkov himself continually stresses this theme, both in his allegorical treatment of history and in his more forth-right recent articles and statements.⁴⁵

This analysis of doctrinal writings suggests that there are several implications for theatre warfare which merit highlighting with respect to the Soviet Navy, particularly in the dominant European context.

First is the primacy of the land campaign. This is clearly the focus of the Soviet military theoreticians including the naval writers. Gorshkov himself acknowledges the differing value of continental and maritime theaters of operation in a context that clearly accepts the supremacy of the former.⁴⁶

The linkage of naval operations to the ground campaign is an element that bears consideration. Soviet naval writers often use the phrase "independent operations," but this has to be understood as independent from the coastal defensive zone only and the command organization the latter entails. "Independent operations" are the blue-water operations which now engage a significant fraction of the Soviet Navy; however, there is a clear record of their rationalization and justification on the basis of their direct and immediate contribution to the success of the land campaign.⁴⁷ Often overlooked but clearly emphasized by the Soviet naval writers are the roles which engage the other fraction of the Navy that are even more closely

wedded to the land campaign: support of the seaward flanks, supportive amphibious assaults, maintenance of sea lines of communications in the "closed seas," and even protection of the land flank from attack by non-U.S. naval forces.⁴⁸

Second is the dependence of the Soviet Navy on other branches of the Armed Forces which, in certain circumstances, could be critical. Long Range Aviation has a supplementary naval role which could be preempted by overriding priorities. The national air defense forces (PVO Strany) and frontal aviation provide air cover for coastal seas within their range, but this is also subject to competing priorities. And there are indications in some writings that at least the IRBMs and MRBMs of the Strategic Rocket Forces have a role in naval campaigns in the Baltic and the Mediterranean; these forces, too, are subject to competing priorities.⁴⁹

The significance of the foregoing is both explicit and implicit. On the explicit side are: the range of naval commitments to the land campaign that could dilute the availability of forces for the "independent" bluewater operations, particularly in the case of Soviet Naval Aviation, and the constraints that could be placed on naval operations if overriding priorities are assigned to other branches in support of the land campaign. On the implicit side is the improbability of a freewheeling "war at sea." It seems clear from the literature that the centralized, unified command would insist on tight and close control of naval operations and their synchronization with the land campaign. The question arises, then, whether the Soviet centralized command would permit the conflict at sea to get ahead of the land campaign. Could hostilities start at sea before the ground and air forces were ready to prosecute the land campaign? Or, if hostilities had commenced at the conventional level, would the Soviets initiate the use of nuclear weapons at sea before their forces were postured and ready to use them in the land campaign? The impression gained from the literature, and it can be no more than that, is that the considerations of the land campaign would dominate. If this is true, there could be a willingness to accept considerable losses at sea before a nuclear threshold was perceived by the central leadership.

Soviet Navy Threat Perceptions

Soviet naval writings make it quite clear that the primary naval nuclear strike threat is now seen to be the SSBN, including those of the UK and France.⁵⁰ The aircraft carrier is seen to be a secondary threat, in part because of the belief that the U.S. itself has assigned it a secondary strike mission; however, the literature clearly indicates that the Soviets believe they can readily cope with that threat:

...Since aircraft carriers continue to remain one of the carriers of the means for nuclear attack and are a multi-purpose force, they also themselves remain one of the main targets for attack by other forces, including also aviation forces. Thus, the possibilities of destroying them under current conditions in connection with the existence of nuclear missile weapons, missile-carrying aviation, nuclear submarines, and guided-missile ships have considerably increased in comparison with past wars despite the increased power of their own defenses and their combat escort forces.

Modern naval missile carrying aviation armed with nuclear missiles can employ its weaponry while beyond the limits of the carrier force air defense. Whereas heretofore dozens of aircraft were needed to destroy a large warship with bombs and torpedoes, today several missile-carrying aircraft and one nuclear missile are sufficient.⁵¹

In theatre warfare, the literature implies that both the SSBN force and the aircraft carriers would be primary targets for immediate destructive attack, even at the conventional level, to eliminate or blunt their nuclear strike potential.⁵² As indicated earlier, no clear evidence has been found that the Soviets would withhold attacks on the SSBN force out of consideration of the effect on deterrent stability.

While the Soviet authors consider the nuclear capabilities of the Western carrier forces to be a strategic reserve supplementing NATO's SSBNs, the attack carrier is also evaluated as the primary element of naval general purpose forces. In this role, the CVA is seen as a threat to the land campaign, to Soviet SSBN forces, and to Soviet anti-SSBN forces, as well as to surface ships and coastal targets.⁵³ This dual strategic/operational role only compounds the urgency of the carrier's destruction.

The nuclear attack submarine is seen by the Soviets to be the dominant threat to their own SSBN force and therefore a primary target for offensive, hunter-killer operations.

Operational-tactical nuclear-powered submarines have taken over the leading role in the struggle against the missile-armed submarines. They now pose the greatest threat to both strategic submarines and surface ships and transports.⁵⁴

Additionally, this threat dictates protective ASW operations around their own SSBNs to which Gorshkov alludes in the following passage:

...it is clear that there is a tendency toward a reduction in the time period of maintaining the sea control which has been gained, and the effort to gain it has become more and more intense. This tendency remains even today, since naval forces and equipment are being intensively developed, nuclear-missile weaponry is being upgraded, and naval aircraft are being employed more and more widely. It is particularly important that submarines have become the main arm of the forces of modern navies. The new strategic orientation of navies toward warfare against the shore has also played a great role. All of this has to a great degree increased the need for the all-round support of the operations of forces prosecuting strategic missions. Therefore, the effort to establish favorable conditions in a certain area of a theatre and for a certain time for the successful accomplishment by a major grouping of naval forces of the primary missions assigned to it and at the same time also to establish those conditions which would make it difficult for the enemy to carry out his own missions and would prevent him from disrupting the operations of the opposing side will apparently become widespread.⁵⁵

In the literature of the earlier period, considerable attention was given to the U.S. amphibious assault capability. Recent writings are virtually silent on this subject; if mentioned, it is usually in the more inclusive context of anti-ship or anti-SLOC operations.

Soviet Navy Mission Priorities

Soviet naval writings state that the two primary missions of the navy are nuclear strike and defending against enemy strikes:

The transition of naval operations from the operational-tactical to a higher, strategic plane installs those

operations among the decisive operations, subordinating to themselves all others, including those directed toward gaining control of the sea. Whereas previously the bulk of the naval efforts has been directed against the enemy fleet, today supporting all missions related to operations against enemy land targets and to protection of one's own soil from attacks by his navy is becoming the main goal of the navy.⁵⁶

In the theatre war context, this would imply that the first two mission priorities would be allocated to operations to ensure the survivability and mission-readiness of their own SSBN force, and to operations to destroy enemy SSBN and aircraft carrier strike forces at sea.⁵⁷ In the few instances where planned U.S. sea-launched cruise missile capability is discussed, it is forecast in a "tactical" role at sea. Should this capability be considered to pose a nuclear strike threat ashore, it may be inferred that the launch platforms will become target priorities coequal to the SSBNs and aircraft carriers.

Third priority, at least in some recent writings, is often accorded to the protection of own sea lines of communications, ostensibly in the "closed seas." In other instances disruption of the enemy sea lines of communication is given this priority. Succeeding priorities are generally given to the Soviet's own conduct of amphibious assault operations and then coastal operations in direct support of the land campaign.⁵⁸

Soviet Navy Force Priorities

Soviet naval writings make it clear that the submarine force is dominant in the Soviet navy. It is not only the strategic strike force but the primary attack force at sea.⁵⁹

Soviet Naval Aviation clearly appears to be given second priority. It is not only a major reconnaissance, surveillance and attack force but, increasingly, a major element of the anti-submarine force sharing in the emphasis being given the anti-SSBN and pro-SSBN missions.⁶⁰

The priority to be given large surface units has clearly been a matter of contention in the Soviet Navy since the early 1950s. The role of the large "missile-artillery" cruiser, i.e. the KYNDA and KRESTA I, has been anomalous at best. In recent years, it is seldom mentioned in an

anti-aircraft carrier role where the focus is now almost exclusively on submarine and air strikes. When discussed in an anti-SLOC role it is generally where air cover is available and the convoy covering forces have been decimated. There are tenuous indications that such ships are considered to have a significant peacetime "presence" role. Increasingly since the mid-1960s, the large surface ship role has been placed in an ASW context, consistent with the anti- and pro-SSBN emphasis and observed building programs.⁶¹

Soviet naval writings have not directly discussed the roles of the MOSKVA and KIEV class air-capable ships. In part, this can be seen as an aspect of the contention over large surface ships and their imputed vulnerability. The inference to be drawn is that their rationalization stemmed primarily from the anti- and pro-SSBN orientation of the Soviet Navy. With regard to the KIEV-class, Soviet naval writings have for many years pointed to the necessity to be able to combat the enemy ASW aviation capability.⁶² This is quite probably another requirement which contributed to the rationale and apparent design characteristics of the class.

Soviet Navy Concern for the "Breakout"

An underlying and persistent theme in Soviet naval literature is the necessity for the Soviet Navy to "break-out" and get to sea, both in a literal and mission-oriented sense. This, of course, is not remarkable given the Soviet geographic circumstances and the recently assumed "blue-water" missions of its Navy. However, several aspects which may appear self-evident bear highlighting due to their relevance to theatre warfare, particularly in its European context.

It is quite clear in the Soviet writings that the role of the Baltic Fleet is not only to dominate the Baltic and support the seaward flank of the land campaign, but to force the Danish Straits and operate in the North Sea. The amphibious assault mission clearly has this orientation, possibly even to the exclusion of support of the land campaign. A similar role is also quite clear for the Black Sea Fleet, with the Mediterranean its wartime operating area.⁶³

With regard to the Northern Fleet, it is also quite clear that the G-I-UK gap is seen as a major constraint, particularly with respect to the NATO anti-submarine barriers emplaced there.⁶⁴

Soviet naval writings make it clear that they would hope to have the bulk of their offensive forces "broken out" prior to hostilities, but they are alive to the strategic alert massive submarine deployment would give to the West, as well as the necessity, at least at some point in a protracted war, for their forces to be able to come back through these choke points. The writings leave little doubt that the Soviet fleets intend to fight their way through and dominate these choke points.⁶⁵

The implication, which may be self-evident, nonetheless bears noting. If priority is given to these "breakout" operations, as there is every indication there will, and equal priority is given all the choke-points, which may be arguable, the Soviet Navy would be required to concentrate forces and effort to a degree which could have significant impact on their capabilities to execute missions in "open ocean" areas in the early days of hostilities. Under present resource constraints, the choices would seem to pose a difficult problem for the Soviet leadership. Even in optimum circumstances, it would appear that the potential for early operations of significant weight in mid-Atlantic and mid-Pacific ocean areas would be severely constrained. The problem would be even more acute for the Soviet leadership if they contemplated initiation of hostilities early in a confrontation situation; in such a "shortwarning" attack scenario, the risk of giving strategic alert to the opponent would be considerable. The question then would become one of how significant the early naval operations were to the central strategy and what risk their initial delay would pose to the success of that strategy.

With specific regard to the G-I-UK gap, there is an obverse side to the evident Soviet concern. There is ample evidence to indicate that the Soviet Navy considers this sea region a primary forward defense line where they must hold off or defeat NATO surface naval forces. There is also evidence to support the contention that the Soviet Navy would emplace its

own anti-submarine barriers in this same area for two purposes: first, to seal off ingress into the Norwegian Sea by Western SSBN forces if they continue to perceive this as an operating area as they have in the past; and secondly, perhaps more importantly in the future, to prevent the penetration of attack submarine forces into a "secure area" for their own SSBN force.

An Atlantic scenario consistent with the foregoing would have the following characteristics at the outset of theatre war: a massive concentration of Soviet naval air, ASW surface, and ASW submarine forces in the G-I-UK gap to breach NATO anti-submarine defenses to permit the Soviet attack, cruise missile and, for the near term, ballistic missile submarines to stream into the Atlantic for offensive operations; concurrent operations by the same forces to prevent the entry into the Norwegian Sea of NATO ASW submarines; operations by Soviet cruise missile submarines and naval aviation to cover these forces from attack by NATO surface naval forces; hunter-killer operations in the Norwegian Sea against NATO ballistic missile and ASW submarines by Soviet ASW air, surface and submarine forces; and ASW protective operations by the same type of forces around an operating haven for their own DELTA SSBN force.

It might be noted that this scenario would provide credible roles for the MOSKVA- and KIEV- class ships and is otherwise consistent with Soviet Northern Fleet composition and, quite possibly, numbers. It would also appear to be consistent with Soviet naval perceptions of mission priorities in wartime.

Soviet Naval Operational Concepts

Throughout the Soviet naval literature that has been reviewed, a variety of operational concepts have been discussed with varying degrees of detail. In the earlier literature, the context was the all-out nuclear war, and the use of particular nuclear weapons was specified quite clearly. Later contexts were more ambiguous, but the same concepts appeared to prevail regardless of weapon character. Additionally, the discussion of naval warfare has often been organized around a fairly standard set of characteristics within which the range of concepts can be fitted. For

purposes of summation, this latter framework appears to be the most convenient for aggregating the elements of doctrine for theatre warfare.⁶⁶

Scale and vast spatial scope are said to be basic characteristics of modern naval warfare.⁶⁷ The concept is most generally applicable to the all-out nuclear war in the Soviet context of such being a war to the finish between opposing social systems. The spatial scope stems from the Soviet naval perception that they must seek out and destroy the enemy naval nuclear strike forces no matter where they might be; Gorshkov implies that with the advent of TRIDENT this could spread warfare throughout all the World Ocean. In some instances, the discussion of an anti-SLOC campaign takes on world-wide connotations. Taken literally, these concepts would mean that a NATO European theatre war would entail worldwide naval operations whether conducted conventionally or with nuclear weapons. Whether this is hyperbole or not can best be judged by the pattern of Soviet peacetime forward deployments and an evaluation of the ability of the Soviet naval forces to spread out in strength to undertake significant naval operations of this scale. There is clear evidence in earlier Soviet naval writings of the concept of extending naval operations out to the "launch" line or zone defined by the maximum strike range of carrier aircraft and ballistic missile submarines. If this is extrapolated to the increasing range of the latter, Gorshkov's comments certainly fit. Soviet naval writers also discuss pre-positioning submarine attack forces off the bases and operating ports for attack carriers and SSBNs to establish trail and await the commencement of hostilities.⁶⁸ The most reasonable interpretation would appear to be a level of hostile submarine activity throughout distant ocean areas consistent with the pre-hostilities deployment posture but with the most intense Soviet naval activities closer to the Soviet Union where offensive capabilities can be aggregated to ensure local superiorities.

An element of this concept which bears mention is the Soviet concentration of attention on the base and support facilities for enemy naval forces. The necessity for their destruction is generally seen to have priority almost equivalent to that of the naval forces themselves. This is particularly true in the case of combatting the enemy SSBN force

where related communications, navigational aids, support ships and bases are given the highest target priorities. There appears to be a clear intention to devote a significant portion of an initial strike effort, conventional or nuclear, to the destruction of theatre naval support facilities. Indicative of their concern for nuclear war fighting potential is their focus on missile resupply capabilities:

Such new important targets as nuclear stores supply transports, submarine tenders for guided missile submarine squadrons with spare missiles, transports carrying missiles for submarines, etc., have made their appearance in the forces supporting the combat operations of the fleets of the nuclear powers. These auxiliaries, actually being mobile warehouses for missile and nuclear weapons, are of great importance in supporting combat operations at sea.⁶⁹

Surprise is a characteristic which receives continual attention. As discussed earlier, it has many connotations. Reliance on the submarine as the primary offensive weapon in itself is seen as enhancing the element of surprise because of the nature of its operations and the ability to avoid detection.⁷⁰ Use of underwater communications for strike coordination and encrypted radio communications are seen to have the same quality.⁷¹ The use of active electronic warfare measures to suppress or degrade enemy detection capabilities also fits within this framework.⁷² Mention is also made of the necessity to present false targets, decoys, and decoy operations to enhance surprise and the context extends well above the tactical engagement level with implications that are far from clear.⁷³ Incorporated within the discussion of surprise is an overriding emphasis on reconnaissance and surveillance. Both systems and operational employment modes are heavily stressed. There is a clear record of emphasis on satellite reconnaissance that goes back in the literature until at least the early 1960s.⁷⁴ Long range aircraft are otherwise generally considered to be primary reconnaissance platforms with nuclear and diesel submarines following in order. Submarine trailing operations, patrol zones, and barriers fit into the

concept and are emphasized. Radio direction finding and signal intercept are key elements and the requirement for greatly improved underwater surveillance capability is stressed heavily.⁷⁵

At the level of force employment, the strike concept receives considerable elaboration as the means whereby not only enemy naval forces can be destroyed but major strategic objectives achieved with one blow. It is clear that cruise missile-equipped submarines and aircraft are the primary strike forces against enemy surface naval units, to be employed in coordinated operations whenever feasible. In ongoing combat, the "no one waits for anyone" principle appears to prevail with other forces joining when and as they can.⁷⁶ The situation which would prevail at the initiation of hostilities at Soviet option is not quite as clear. Simultaneity of strikes against all enemy offensive capabilities is evidently a goal to be achieved if at all possible. However, if one considers the widespread geographic dispersal of such enemy capabilities, this runs somewhat counter to the concept of ensuring that each initial strike has sufficient weight so that it cannot be repulsed. In the same context and against enemy surface targets, there appear to be indications that the submarine missile attack would precede the air-launched missile attack to degrade defense against both the air-launched missile and its aircraft platform.⁷⁷

The "battle" characteristic seems to be more theoretic than operative. It is usually discussed in terms which emphasize that future naval combat will be three-dimensional and must be pursued until enemy naval forces are totally destroyed, not merely repulsed or damaged.

Maneuver is discussed in terms with more specific operational relevance. Given the types of offensive forces to be employed, submarines and aircraft, and the range of their weapon systems, the Soviet concept stresses optimum positioning of the force elements so that missile trajectories provide the widest coverage and, presumably, opportunity for coordinated application.⁷⁸ The application of this concept would appear to be most relevant to circumstances such as in the Mediterranean but could also be seen as possible in "open ocean" situations such as barriers.

The massing of forces, long a basic Soviet military concept to ensure local superiority, is now interpreted in a new light by the Soviet Navy. At a theoretical level, it is exemplified by putting such a density of weapons on a single platform that it alone can destroy significant enemy naval force elements or, under circumstances which are apparently nuclear, achieve major strategic objectives. In an operational sense, massing is seen to be achieved by the use of a variety of weapon platforms which by virtue of their long-range offensive weapons can concentrate on a target, particularly surface, from widely dispersed locations.⁷⁹ Although unstated, this would appear to be the naval solution to the Soviet ground forces' concern for the transition from conventional to nuclear warfighting, i.e., the same disposition of offensive forces suits either mode.

Mutual support, as a Soviet naval concept, is expressed most often in terms of reliance on other branches of the Armed Forces for support of certain naval operations, but it also stresses naval support of those branches, primarily the ground forces.⁸⁰ With regard to organic Soviet Navy elements, the concept finds expression in the stated necessity to support the operations of the primary offensive arm, the submarine force.⁸¹ In strike operations, as previously indicated, the concept is implemented by close coordination.⁸²

The characteristics of swiftness and tempo appear to be inter-related. Enemy offensive capabilities must be negated or destroyed before he can bring them to bear. Given the spatial scope of operations, the character of the forces involved, and the range and destructive capability of the weapon systems available, the Soviet Navy conceives a high tempo of repetitive strikes until the enemy naval threat is eliminated.⁸³ In contrast to this concept, Soviet naval writings are virtually silent on the matter of staying power. Some acknowledgement of the need for an at-sea replenishment capability appears occasionally, but it is not a dominant theme. This concept of high tempo operations, if not matched by a concept for at-sea resupply, has significant implications. If the main offensive force is the submarine, there are evident weapons capacity limitations and problems in

at-sea resupply. Either the totality of the weapons put to sea in an initial deployment surge must be reckoned capable of sustaining this tempo until the enemy is defeated, or a reduced initial effort must be undertaken with forces echeloned to permit rapid replacement at the scene of the heaviest combat activity. The only other alternatives would be acceptance of a significantly lowered nuclear threshold which, as discussed earlier, would appear inconsistent with flexibility on the part of the political leadership and with close linkage to the continental ground campaign, or the withholding of a certain portion of the fleet, armed with nuclear weapons, until the nuclear threshold had been crossed.

The two remaining characteristics cited in the literature, close control and organization, are also interrelated. Because of the spatial scope of operations, the criticality of the missions, and the gravity of nuclear weapon employment, the Soviet naval literature makes it abundantly clear that "blue-water" operations are going to be closely controlled at the highest command echelons in Moscow.⁸⁴ The situation with respect to other operations, in the "closed sea areas" such as the Baltic and the Black Sea and in the coastal zones, is less clear with some indication of increased latitude at a lower level such as the Fleet. At the local tactical level, there are similarly clear indications of close control of forces with the on-scene commander being subservient and responsive to close direction by the next command echelon, Moscow in the case of "blue-water" operations and Fleet headquarters in the case of others. Interwoven throughout is an emphasis on surveillance and reporting to the decision authorities.⁸⁵ With regard to nuclear weapon use, the impression gained is one of top-down direction when the judgment is made that they are required; the notion of the on-scene commander requesting selective or conditional release does not appear in the literature. There are some grounds for inferring that once nuclear weapons use is authorized, submarine commanders may have some latitude for employment against targets at sea; otherwise, the indications are that almost every nuclear round would be controlled from on high. The net impression gained from the literature is one of operational and organizational rigidity of control with overtones of

inflexibility. Moreover, despite the exhortations for initiative at the lower operational levels, the impression is gained that the whole system depends on everything going just as prescribed, that the loss of a communication link or a command echelon would be more than disruptive, perhaps even catastrophic.

SUMMARY POSTULATION OF DECLARATORY DOCTRINE

As the preceding brief overview of the Soviet military literature indicates, there are some elements of the Soviet doctrine for theatre warfare, at either the conventional or nuclear level, which are quite clear. However, there are certain key elements of the doctrine -- first use of nuclear weapons, preemption, and thresholds -- on which the only forthright evaluation is that the literature leaves them ambiguous.

Within the outlines of the general doctrine, those aspects which pertain to the ground and air forces are usually discussed in greater detail than those which relate to the naval forces. Nonetheless, if the additional hypothesis is accepted that certain Soviet concepts and "principles of war" have application to all the armed forces, it is possible to postulate naval analogues where direct discussion is lacking or vague. Specifically enunciated Soviet Navy concepts at the operational and tactical level then can be tested for consistency with the balance of the literature and, where necessary, extrapolated to a reasonable degree.

On this basis, the current Soviet Navy declaratory doctrine for theatre nuclear warfare has been synthesized from the totality of the Soviet professional military literature reviewed by the research team to the level of detail considered supportable. This synthesis can best be expressed as a series of characteristic doctrinal elements at various levels within the primary context of a NATO European conflict in the near term.

At the broad strategic level, Soviet naval declaratory doctrine highlights:

- (1) Provision of a naval force posture which will permit the Soviet political leadership the widest possible range of flexibility and retention of the initiative in terms of when and how hostilities commence, and the choice of conventional or nuclear weapon use;
- (2) Provision of surveillance, targeting, and reliable command, control and communications, in terms of both organization and system capabilities, which will permit close control and direction by the centralized military-political leadership;
- (3) Provision for maximizing force readiness and deploying forces in a controlled manner at the first indication of increasing tension or confrontation which will not in itself induce undesired reactions or the initiation of hostilities;
- (4) And at the outbreak of hostilities, the close coordination of naval operations to support the continental land campaign which dominates the overall Soviet theatre strategy.

To support the foregoing, Soviet declaratory doctrine emphasizes certain operational objectives, whether hostilities commence at the conventional or nuclear level. In the judgment of the research team, the professional literature either explicitly or implicitly establishes a prioritization of efforts reflected in the following ordering of force employment goals:

- (1) Protective ASW operations to ensure the survivability and mission-readiness of the Soviet SSBN force;
- (2) Offensive operations to destroy or inhibit the operations of the Western SSBN force;
- (3) Offensive operations to destroy the NATO strike aircraft carrier force;

- (4) Offensive operations to support the Soviet submarine force's penetration of NATO ASW defensive barriers in order to pursue offensive missions in open ocean areas;
- (5) Offensive operations against those theatre shore facilities which support the operations of the Western SSBN force, and those ASW forces and systems which constrain the free egress and open ocean operations of the Soviet submarine forces;
- (6) Offensive operations against those sea lines of communication and theatre ports and facilities which have direct and immediate impact on the continental land campaign;
- (7) And when directed by the military-political leadership, the use of nuclear weapons to achieve any or all of the above operational objectives.

While the inclusion of offensive operations against the NATO SSBN force and its in-theatre support facilities may be questioned by some because of its escalatory implications, there is no indication of a clearly perceived restraint in the Soviet military literature reviewed. Rather, the bulk of the literature implies that such operations would be considered akin to those conceived to neutralize theatre nuclear strike capabilities, so long as they did not impinge on the continental United States. The implication of strikes against support facilities in the United Kingdom or France, each of which has its own national strategic retaliatory force, has not been addressed in the literature reviewed.

At the tactical level, Soviet declaratory doctrine emphasizes the following to achieve the enumerated strategic and operational objectives:

- (1) Early and intensive reconnaissance and surveillance by the Soviet Ocean Surveillance System (comprised of satellites and radio direction finding facilities) integrated with activities of Soviet Naval Aviation, the submarine force, intelligence collection auxiliary ships, and to the extent assets are available, Soviet Long Range Aviation; additionally, all

- Soviet-controlled maritime assets such as the merchant and fishing fleets will have a sighting and reporting mission;
- (2) Strike operations against enemy surface units by the submarine force, Soviet Naval Aviation, and available assets of Long Range Aviation, coordinated when feasible to be mutually supportive and to provide a level of effort which will ensure destruction of enemy offensive units; under a restricted set of circumstances, surface ships will join in such operations;
 - (3) Support operations, within range, by national air defense forces, frontal aviation, and under certain circumstances, elements of the Strategic Rocket Forces;
 - (4) Efforts to achieve concealment and surprise by a diversity of means including active electronic warfare;
 - (5) A high tempo of offensive strike operations to eliminate enemy naval offensive capabilities at the earliest possible time;
 - (6) And with the constant readiness to use nuclear weapons when and as directed.

CONCLUDING COMMENTS

It will be noted that the preceding synthesis of the Soviet Navy declaratory doctrine makes little differentiation between the conduct of theatre naval warfare at the conventional or nuclear level. In the view of the research team, this is an accurate reflection of current Soviet naval thought as revealed in their professional literature and is not without its implications. The current pattern of Soviet naval operations does not necessitate a marked shift from a conventional to a nuclear mode and has inherent in it a considerable degree of the flexibility evidently sought. How the Soviet Navy sees its own strengths relative to its principal naval adversaries and what its impulsions toward nuclear use might be is far from clear; however, given the historic dominance of the land campaign in Russian and Soviet military strategy, it is not certain that the naval calculus would

prevail in any event. Accordingly, it is incumbent upon the Soviet Navy to be prepared at all times for either conventional or nuclear weapon use, as may be directed by the military-political leadership.

As a final point, the synthesis of Soviet Navy declaratory doctrine does not have the specificity desired, nor in fact anticipated at the outset of the research program; nonetheless, it does have imbedded in it elements of significance which merit further consideration. Perhaps chief among these is the fact that the Soviet Navy, as well as the other elements of the Soviet armed forces, has apparently faced up to nuclear warfare and incorporated it in their operational doctrine to an unusual degree. Their approach stands in contrast to that of Western naval forces who, it can be fairly stated, consider the use of nuclear weapons the ultimate recourse. Starting, as the Soviet Navy evidently did in the late 1950s, with the conception that the continental warfare they would have to support not only could but would become nuclear, their theoreticians thought through at least the operational aspects if not the escalatory implications of nuclear weapon use. This theoretic underpinning can only be discounted at the peril of Western naval forces; it gives the Soviet Navy a considerably different philosophical and psychological basis for force and weapon employment planning.

REFERENCES

1. United States, Department of Defense, Joint Chiefs of Staff, Dictionary of Military and Associated Terms (JCS Pub 1) (Washington: U.S. Government Printing Office, 1974), p. 112.
 2. Dictionary of Basic Military Terms: A Soviet View (Washington: U.S. Government Printing Office, 1976), translated by the DGIS Multilingual Section Translation Bureau, Secretary of State Department, Ottawa, Canada, p. 37.
 3. Dictionary of Basic Military Terms: A Soviet View, p. 39.
 4. Dictionary of Basic Military Terms: A Soviet View, p. 38.
 5. Dictionary of Basic Military Terms: A Soviet View, p. 215.
 6. Colonel-General N. A. Lomov (Ret.), "Leninist Bases of Soviet Military Strategy" (Morskoy Sbornik,* No. 4, 1970), p. 24.
 7. Marshal V. D. Sokolovskiy, ed., Military Strategy, 3rd. Edition (Moscow: Voyenizdat, 1968). Page references are to the annotated translation by Harriet F. Scott in Soviet Military Strategy (New York: Crane, Russak & Company, 1975) which compares the third edition to the preceding two, published in 1962 and 1963; p. 195. These paragraphs are unchanged from the original 1962 edition.
 8. General-Major R. Simonyan, "Wars in the Eyes of the Pentagon" (Red Star, 27 May 1976), translated in Soviet Press: Selected Translations, October 1976, pp. 1-8. General S. Ivanov discussed this subject in 1969 in his "Soviet Military Doctrine and Strategy" (Voyennaya Mysl, No. 5, 1969), pp. 48-49, FPD 0116 69. Most of his contemporaries disagreed, however.
 9. See, for example, Lomov (above); Colonel Ye. Rybkin, "The Leninist Concept of War and the Present" (Kommunist Vooruzhennikh Sil, Nov. 20, 1973), translated in Soviet Press: Selected Translations, No. 1, 1974; Colonel V. Ye. Savkin, "Characteristics of Modern Warfare" (Voyenny Vestnik, Nov. 3, 1974), translated in Soviet Press: Selected Translations, No. 5, 1974; and Stepan Andreyevich Tyoshkevich, Filosofiya i Voyennaya Teoriya (Moscow: Izdatel'stvo Nauka, 1975).
- * N.B. for issues of Morskoy Sbornik prior to May 1973, page citations given are those of the NISC translations. For the May 1973 issue and later, page citations are those of the original Russian text.

10. The late Premier Khrushchev discusses this in his memoirs, Krushchev Remembers: The Last Testament (Boston: Little, Brown & Co., 1974), pp. 528-529, and elsewhere. See also General-Lieutenant Professor M.A. Milshtein and Colonel L. S. Semeyko, "The Problem of the Inadmissibility of a Nuclear Conflict (On New Approaches in the United States)" (USA Institute Journal), translated in Soviet Press: Selected Translations, No. 1, 1975.
11. Lomov, p. 24, for example.
12. The restraints imposed upon "imperialist" politico-military objectives by the power of the socialist states are discussed quite often. See RADM K. Stalbo, "Naval Forces in Local Wars," (Morskoy Sbornik, No. 9, 1976) for an example.
13. Colonel S. Tyushkevich, "The Methodology for the Correlation of Forces in War" (Voyennaya Mysl', No. 6, 1969), FPD 0008/70. For a "case history" see P. Andreyev and Capt-Lt G. Alekseyev, "Asia in the Military Strategy Plans of the Pentagon" (Voyennaya Mysl', No. 7, 1969), FPD 0022/70.
14. See Sokolovskiy, pp. 64-69, 168, and RADM K. Nikolayev, "The Navy in Local Wars" (Voyennaya Mysl', No. 3, 1969), FPD 0101/69.
15. Sokolovskiy, p. 13, for example.
16. Maj. Gen. S. Shtrik, "The Encirclement and Destruction of the Enemy during Combat Operations Not Involving the Use of Nuclear Weapons," (Voyennaya Mysl', No. 1, 1968), p. 53, FPD 0093/68.
17. See Ivanov, pp. 48-49.
18. Simonyan, p. 5.
19. Maj. Gen. N. Vasendin and Col. N. Kuznetsov, "Modern Warfare and Surprise Attack" (Voyennaya Mysl', No. 6, 1968).
20. Marshal A. A. Grechko, "On Guard over Peace and Socialism" (Kommunist, No. 7, May 1973) translated in Selected Soviet Military Writings (Washington: U.S. Government Printing Office, 1977), pp. 9-10. For earlier comment, see Maj. Gen. V. Zemskov, "Characteristic Features of Modern Wars and Possible Methods of Conducting Them" (Voyennaya Mysl', No. 7, 1969), FPD 0022/70.
21. Professor-RADM V. Andreyev, "The Military Doctrine of American Imperialism" (Morskoy Sbornik, No. 4, 1972), p. 90.

22. See, for example, an early criticism of "flexible response" in Capt. 1st Rank A. Kvintitskiy and Capt (Res), Yu. Nepodayev, "The Theory of the Escalation of War" (Voyennaya Mysl', No. 9, 1965) and a similar criticism of "select targets strategy" in Milshtein and Semeyko, pp. 16-17, approximately ten years later.
23. Simonyan, p. 5.
24. Maj. Gen. V. Zemskov, "Wars of the Modern Era" (Voyennaya Mysl', No. 5, 1969), p. 61, FPD 0116/69.
25. Lt. Gen. G. Semenov and Maj. Gen. V. Prokhorov, "Scientific-Technical Progress and Some Questions of Strategy" (Voyennaya Mysl', No. 2, 1969), pp. 31-32, FPD 0060/69.
26. Capt. (Res.) Yu. Nepodayev, "On the 'Nuclear Threshold' in NATO Strategy" (Voyennaya Mysl', No. 6, 1966), p. 73, FPD 0503/67.
27. Col. L. Solov'yev and Col. S. Taran, "The Employment of Defense by the Ground Forces Under Modern Conditions" (Voyennaya Mysl', No. 12, 1968), FPD 0102/69, and Cols. N. Popov, A. Kukushkin, and M. Persevalov, "Employment of Defense by the Ground Forces Under Modern Conditions" (Voyennaya Mysl', No. 7, 1969), FPD 0022/70.
28. For example, see Sokolovskiy, p. 254, and Capt 1st Rank N. Vlasov, "The Past, Present, and Future of Surface Ships" (Morskoy Sbornik, No. 3, 1974).
29. Sokolovskiy, p. 254.
30. Shtrik, p. 54.
31. General-Major R. Simonyan, "The Concept of 'Selective Targetting'" (Red Star, 16 September 1976), translated in Soviet Press: Selected Translations, No. 11, 1976, p. 3.
32. Capt 1st Rank N. V'yunenko, "Some Trends in the Development of Naval Tactics" (Morskoy Sbornik, No. 10, 1975), p. 21.
33. For one example, see Capt 1st Rank G. Kostev, "Coordination--The Most Important Principle of the Employment of Forces" (Morskoy Sbornik, No. 2, 1974), p. 33.
34. For example, research of The BDM Corporation on the Soviet Combined Arms Armies.
35. A. A. Sidorenko, The Offensive (Moscow: Voyenizdat, 1970), translated edition (Washington: U.S. Government Printing Office, Stock Number 008-070-00329-5).

36. Zemskov, "Characteristic Features of Modern Wars...", pp. 20, 22-23.
37. Shtrik, p. 53.
38. Col. N. Semenov, "Gaining Supremacy in the Air" (Voyennaya Mysl', No. 4, 1968), pp. 43-44, FPD 0052/69.
39. Gen-Lt V. G. Reznichenko, "Tactics: Development Trends" (Red Star, 5 October 1976), translated in Soviet Press: Selected Translations, No. 12, 1976, p. 6.
40. See Solov'yev and Taran, and Popov, Kukushkin and Persevalov.
41. Semenov and Prokhorov, pp. 31-32.
42. RADM A. Gontayev, "Surprise as a Category of the Naval Art" (Morskoy Sbornik, No. 3, 1973), p. 16.
43. Zemskov, "Wars of the Modern Era," pp. 61-63, and Simonyan, "Wars in the Eyes of the Pentagon," p. 4.
44. For example, see FADMSU S. G. Gorshkov, "Certain Questions Concerning the Development of the Art of Naval Warfare" (Morskoy Sbornik, No. 12, 1974), pp. 29-30.
45. FADMSU S. G. Gorshkov, "The Experience of History and the Situation Today" (Questions of Philosophy, 13 May 1975), translated in Soviet Press: Selected Translations, No. 5, 1976, p. 12.
46. FADMSU S. G. Gorshkov, Sea Power of the State (Moscow: Military Publishing House, 1976), p. 7 (hereinafter identified as SPOS) and "Navies in War and Peace" (Morskoy Sbornik, No. 2, 1972), p. 10.
47. Capt 1st Rank N. V'yunenko, "Naval Support of Ground Forces" (Voyennaya Mysl', No. 7, 1963), pp. 62-66; FDD 956.
48. Gorshkov, SPOS, p. 320-322.
49. Maj. Gen. (Aviation) I. Lyubimov, "Coordination of National Air Defense Troops with the Navy" (Voyennaya Mysl', No 3, 1969); FPD 0101/69.
50. Gorshkov, SPOS, p. 283.
51. Capt. 1st Rank V. Germanovich and Capt. 1st Rank N. Klimov, "The Destruction of Large Surface Ships at Sea by Aviation" (Morskoy Sbornik, No. 3, 1972), p. 38. Also see FADM V. Kasatonov, "The Role of Surface Ships in Combat at Sea" (Voyennaya Mysl', No. 2, 1969), p. 38, and Capt. 1st Rank Yu. Bol'shakov and Capt. 1st Rank M. Chuprikov, "Submarines Against Major Combatants at Sea" (Morskoy Sbornik, No. 6, 1972), p. 33.

52. Col. A. P. Anokhin, "Aviation in Combat Against Naval Strike Forces" (Morskoy Sbornik, No. 6, 1970), p. 34.
53. See Capt. 1st Rank G. Kostev, "The Battle Under Water" (Morskoy Sbornik, No. 3, 1973), p. 26. Also see Col. O. Kozlov and Capt. 2nd Rank Ye. Sokolovskiy, "U.S. Carriers and Carrier Aircraft Described" (Aviatsiya i Kosmonavtika, No. 1, 1976).
54. V'yunenko, "Some Trends. . .," p. 22.
55. Gorshkov, SPOS, p. 378. See also Capt. 2nd Rank S. Shapovalov, "Views of U.S. and NATO Command on Antisubmarine Warfare" (Morskoy Sbornik, No. 11, 1976), p. 85.
56. Gorshkov, SPOS, p. 354.
57. V'yunenko, "Some Trends...," p. 21.
58. Bol'shakov and Chuprikov, p. 33; Capt. 1st Rank Ye. Mamayev, "The Disruption of Sea and Ocean Transport" (Voyennaya Mysl', No. 12, 1968), FPD 0102/69; Capt. 1st Rank K. V. Penzin, "Changes in the Methods and Forms of Armed Conflict at Sea" (Morskoy Sbornik, No. 7, 1966), p. 40.
59. Gorshkov, SPOS, p. 319; Sokolovskiy, p. 200.
60. Gorshkov, "The Experience of History..." p. 17; Anokhin, p. 35; and Col. A. Vereshchagin, Capt. 1st Rank N. V'yunenko, Col. F. Smirnov, and RADM (Res) D. Tuz, "Aircraft in Combat Operations at Sea" (Voyennaya Mysl', No. 7, 1968), p. 58; FPD 0036/70.
61. Vlasov, p. 36; Gorshkov, SPOS, pp. 319-320.
62. E.g. Col. I. Kutsayev, "ASW Aircraft" (Morskoy Sbornik, No. 12, 1974), p. 90.
63. ~~Alexander~~ Sysoyev, "Naval Blockade" (Morskoy Sbornik, No. 12, 1976), pp. 34-35; and Capt. 1st Rank N. P. Lochenko and Capt. 1st Rank V. I. Shloma, "The Naval Blockade as a Form of Armed Combat" (Morskoy Sbornik, No. 2, 1971), pp. 14-15.
64. Capt. 2nd Rank S. Shapovalov, "Views of US and NATO Command on Antisubmarine Warfare" (Morskoy Sbornik, No. 11, 1976), pp. 86-87.
65. Mamayev, p. 54; see also Lt. Col. Yu. A. Bryukhanov, "Coordination of Aviation and Submarines" (Morskoy Sbornik, No. 4, 1965).
66. For a representative treatment reflected by other Soviet naval writers, see Gorshkov, "Certain Questions..."

67. Gorshkov, SPOS, pp. 361-364; Gorshkov, "Certain Questions..."
68. Gorshkov, SPOS, pp. 378-379.
69. Capt. 1st Rank K. Titov, "Naval Intelligence Targets and Forces" (Morskoy Sbornik, No. 9, 1972), p. 47. For a discussion of the importance of communications, see Capt. 1st Rank V. S. Pirumov, Eng-Capt. 3rd Rank A. B. Yemel'yanov, and Eng-Capt. 3rd Rank A. P. Il'ich, "Electronic Warfare in War at Sea" (Morskoy Sbornik, No. 7, 1970), p. 9; Capt. 1st Rank L. Semin, "Radio Communication Control of U.S. and NATO Naval Forces" (Morskoy Sbornik, No. 2, 1973), pp. 40-42; and Capt. 1st Rank V. Solov'yev and Lt. Col-Eng. V. Vevtseyev, "Naval Communications in Modern Warfare" (Morskoy Sbornik, No. 2, 1975), p. 92. Mamayev, pp. 51-52, discusses the operational importance of strikes against ship-building and industrial enterprises.
70. E.g. Mamayev.
71. E.g. Semin; Solov'yev and Vevtseyev.
72. E.g. Pirumov.
73. Maj. Gen. V. Kruchinin, "Contemporary Strategic Theory on the Goals and Missions of Armed Conflict" (Voyennaya Mysl', No. 10, 1963), p. 18; FDD TRANSL 965.
74. Col. B. Aleksandrov and Col. A. Yur'yev, "Air and Space Reconnaissance in Armed Conflict" (Voyennaya Mysl', No. 10, 1965), FDD TRANSL 961; Maj. Gen. (Engr) A. Matveyev, "Radioelectronics and Intelligence" (Voyennaya Mysl', No. 3, 1966), FDD TRANSL 967.
75. E.g. Anokhin, p. 35.
76. Gorshkov, "Certain Questions..." pp. 25-28.
77. Kostev, "Coordination...", p. 30.
78. Gorshkov, "Certain Questions..." pp. 25-28.
79. Gorshkov, "Certain Questions..." p. 28.
80. Gorshkov, "Certain Questions..." pp. 24, 29; SPOS, p. 7.
81. Gorshkov, SPOS, pp. 319-320; "The Experience of History..." p. 12.
82. Kostev, "Coordination. . .," p. 30.
83. Gorshkov, "Certain Questions..." pp. 30-31; V'yunenko, "Some Trends..." pp. 21-22.

84. Semenov and Prokhorov, pp. 31-32.
85. For an early example, see Capt. 1st Rank Yu. V. Kolesnikov, "Certain Categories of Naval Tactics" (Morskoy Sbornik, No. 11, 1963), p. 12. For a more recent discussion see Solov'ev and Vevteyev, pp. 59-60.

DISTRIBUTION LIST

DEPARTMENT OF DEFENSE

Assistant Secretary of Defense
Program Analysis & Evaluation
3 cy ATTN: Strat. Prgms.

Commander in Chief
U.S. European Command
ATTN: J-5
ATTN: J-3

Director
Defense Advanced Rsch. Proj. Agency
ATTN: Tactical Technology Office
ATTN: Tech. Assessment Office

Defense Documentation Center
Cameron Station
12 cy ATTN: TC

Director
Defense Intelligence Agency
ATTN: DE-2
ATTN: DT-2C
4 cy ATTN: DB-1

Director
Defense Nuclear Agency
ATTN: DDST
ATTN: TISI
ATTN: STRA
2 cy ATTN: PORA
3 cy ATTN: TITL
5G cy ATTN: RATN
2 cy ATTN: VLWS
ATTN: STNA
ATTN: STSP
ATTN: STVL

Commander
Field Command, DNA
5 cy ATTN: FCPR

Director
Interservice Nuclear Weapons School
ATTN: Doc. Con.

Chief
Livermore Div., Fld. Command, DNA
Lawrence Livermore Laboratory
ATTN: FCPRL

Chairman
Office of Joint Chiefs of Staff
ATTN: Documents Division

Office of the Secy. of Def.
Dir. Net Assessment
2 cy ATTN: Dir. Net Assessment

OJCS/J-3
5 cy ATTN: J-3
5 cy ATTN: SAGA

Asst. to the Secy. of Defense, Atomic Energy
ATTN: ATSD (AE)

DEPARTMENT OF DEFENSE (Continued)

OJCS/J-5
ATTN: J-5

Under Secy. of Def. for Rsch. & Engrg.
2 cy ATTN: S&SS (OS)

USNMR/SHAPE
ATTN: U.S. Documents Officer

Commander in Chief, Atlantic
JCS
2 cy ATTN: Captain J. Shaw
2 cy ATTN: J-34

Commander in Chief, Pacific
JCS
2 cy ATTN: J-3/J-5

DEPARTMENT OF THE ARMY

Asst. Chief of Staff for Intelligence
ATTN: DAMI-FI

Dep. Chief of Staff for Rsch. Dev. & Acq.
ATTN: DAMA-CSM-N

Dep. Chief of Staff for Ops. & Plans
ATTN: DAMO-SSN
ATTN: DAMO-RQS

Commander
Harry Diamond Laboratories
ATTN: DEL.D-TI
ATTN: DELHD-NP

Director
U.S. Army Ballistic Research Labs
ATTN: Tech. Lib.

Commandant
U.S. Army Comd. & General Staff College
ATTN: Tech. Lib.

Commander
U.S. Army Concepts Analysis Agency
ATTN: MOCA-WGP

Commander in Chief
U.S. Army Europe and Seventh Army
ATTN: DCCSOPS-AEAGC-CDC

Commander
U.S. Army Materiel Dev. & Readiness Cmd.
ATTN: Commander

Commander
U.S. Army Missile R&D Command
ATTN: Commander

Commander
U.S. Army Nuclear & Chemical Agency
ATTN: Library

DEPARTMENT OF THE ARMY (Continued)

Commander
U.S. Army Training and Doctrine Comd.
ATTN: Commander

Commandant
U.S. Army War College
ATTN: Library

DEPARTMENT OF THE NAVY

Chief of Naval Material
5 cy ATTN: MAT-00

Chief of Naval Operations
ATTN: OP 981
ATTN: OP 094
ATTN: OP 098
ATTN: OP 02
ATTN: OP 21
ATTN: OP 0212E
ATTN: OP 09RB
2 cy ATTN: OP 90
2 cy ATTN: OP 022
2 cy ATTN: OP 06
2 cy ATTN: OP 064
2 cy ATTN: OP 622
2 cy ATTN: OP 009F
3 cy ATTN: OP 009E
5 cy ATTN: OP 604
5 cy ATTN: OP 96
5 cy ATTN: OP 03
5 cy ATTN: OP 05D

Chief of Naval Research
ATTN: Code 464

Commandant of the Marine Corps
ATTN: DCS (P&O), Requirements Div.
ATTN: DCS (P&O), Strat. Plans Div.

Commander
David W. Taylor Naval Ship R&D Ctr.
ATTN: Code L42-3, Library

Center for Naval Analyses
5 cy ATTN: NAVWAG

Commanding Officer
Navy Field Operational Intelligence Office
5 cy ATTN: Commanding Officer

Commander
Naval Intelligence Command
Naval Intelligence Headquarters
5 cy ATTN: NIC-01

Commanding Officer
Naval Ocean Surveillance Info. Center
ATTN: CDR Maier

Commanding Officer
Naval Intelligence Support Center
ATTN: Commanding Officer
5 cy ATTN: H. Penne

Commanding General
MCDEC
ATTN: Commander

DEPARTMENT OF THE NAVY (Continued)

Superintendent
Naval Academy
ATTN: Library

Commander
Naval Ocean Systems Center
ATTN: Tech. Lib.
2 cy ATTN: Commanding Officer

Superintendent (Code 1424)
Naval Postgraduate School
2 cy ATTN: Code 2124

Director
Naval Research Laboratory
ATTN: Code 2627

Officer-in-Charge
Naval Surface Weapons Center
2 cy ATTN: Code WA501, Navy Nuc. Prgms. Off.

Commanding Officer
Naval Underwater Systems Center
2 cy ATTN: Code 211

Commanding Officer
U.S.N. Submarine School
3 cy ATTN: Commanding Officer

Commanding Officer
U.S. Naval Submarine Base
3 cy ATTN: Commanding Officer

Commanding Officer
U.S. Naval Base
3 cy ATTN: Commanding Officer

Naval War College
2 cy ATTN: Tech. Lib.

Commander-in-Chief
U.S. Atlantic Fleet
ATTN: CINC
3 cy ATTN: N-2

Commander-in-Chief
U.S. Naval Forces, Europe
5 cy ATTN: Code 326

Commander
U.S. Submarine Force, Atlantic Fleet
5 cy ATTN: Commander

Commander
U.S. Submarine Force, Pacific Fleet
5 cy ATTN: Commander

Commander-in-Chief
U.S. Pacific Fleet
ATTN: CINC
3 cy ATTN: N-2

Commander
U.S. Second Fleet
2 cy ATTN: Commander

Commander, U.S. Third Fleet
2 cy ATTN: Commander

DEPARTMENT OF THE NAVY (Continued)

Commander
Sixth Fleet
2 cy ATTN: Commander

Commander
U.S.N. Air Forces, Pacific Fleet
2 cy ATTN: Commander

Commander
U.S.N. Air Forces, Atlantic Fleet
2 cy ATTN: Commander

Commander
U.S.N. Surface Forces, Pacific Fleet
2 cy ATTN: Commander

Commander
U.S.N. Surface Forces, Atlantic Fleet
2 cy ATTN: Commander

Commander
U.S. Seventh Fleet
2 cy ATTN: Commander

DEPARTMENT OF THE AIR FORCE

AF South
2 cy ATTN: U.S. Documents Officer for Cdr.

AF Weapons Laboratory, AFSC
ATTN: SUL

Deputy Chief of Staff
Plans and Operations
ATTN: AFXOD

HQ USAF/RD
ATTN: RDQSM

Commander
Tactical Air Command
ATTN: DCS/Plans

Commander in Chief
U.S. Air Forces in Europe
ATTN: XP
ATTN: DO

DEPARTMENT OF ENERGY

University of California
Lawrence Livermore Laboratory
ATTN: Doc. Con. for R. Barker
ATTN: Doc. Con. for W. Hogan
ATTN: Doc. Con. for M. Gustavson
ATTN: Doc. Con. for G. Staehle

Los Alamos Scientific Laboratory
ATTN: Doc. Con. for E. Palanek
ATTN: Doc. Con. for E. Chapin, W. Lyons
ATTN: Doc. Con. for R. Stoipe

Sandia Laboratories
ATTN: Doc. Con. for 3141, Sandia Rpt. Coll.

OTHER GOVERNMENT AGENCY

Central Intelligence Agency
ATTN: RADM J. Eckland

DEPARTMENT OF DEFENSE CONTRACTORS

BDM Corp.
ATTN: R. Buchanan
ATTN: J. Bode
ATTN: J. Braddock
ATTN: C. Wasaff
ATTN: R. Welander
ATTN: J. Herzog
ATTN: F. Kennedy, Jr.

General Electric Co.
TEMPO Center for Advanced Studies
ATTN: DASIAC

General Research Corp.
ATTN: A. Berry

Hudson Institute, Inc.
ATTN: H. Kahn
ATTN: C. Gray

Boeing Aerospace Co.
2 cy ATTN: T. Casimer

Kaman Sciences Corp.
ATTN: F. Shelton

McDonnell Douglas Corp.
ATTN: Tech. Lib. Services

Mission Research Corp.
ATTN: D. Sowle

Pacific-Sierra Research Corp.
ATTN: G. Lang

Rand Corp.
ATTN: Tech. Lib.

Santa Fe Corp.
4 cy ATTN: D. Paolucci

Science Applications, Inc.
3 cy ATTN: J. Martin

Science Applications, Inc.
ATTN: D. Kaul

Science Applications, Inc.
ATTN: M. Higgins
ATTN: M. Tobriner
ATTN: J. DiGiacomo

Ship Systems, Inc.
ATTN: B. Dunne

System Planning Corp.
ATTN: J. Douglas

Tetra Tech, Inc.
ATTN: F. Bothwell

TRW Defense & Space Sys. Group
ATTN: R. Godman

ED
78